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(54) **FUSED CARBONATE TYPE FUEL CELL DEVICE**

(57) Abstract:

PURPOSE: To separate a reformer from a fuel cell and obtain a device easy for maintenance such as the reactivation or replacement of a catalyst and excellent in reliability with a simple structure by providing the reformer on a discharged fuel gas passage or a discharged oxidation gas passage from a fuel cell so as to give the heat of the discharged fuel gas or the discharged oxidation gas to the reformer.

CONSTITUTION: The fuel mainly consisting of hydrogen carbide and steam is fed to a reformer 9. The reformer 9 has a hydrogen carbide-resolving catalyst 2 in it and is provided inside an oxidation gas outlet manifold 8 and resolves hydrogen carbide by utilizing the sensible heat of the discharged oxidation gas. The fuel gas reformed by the reformer 9 to be mainly consisting of hydrogen and carbon monoxide is fed to a fuel cell laminated body 1 through a fuel gas inlet manifold 10, and the chemical energy of the fuel gas is converted into electric energy and byproduct thermal energy. In this case, the byproduct thermal energy is taken away by the oxidation gas and is heat-exchanged with the fuel gas through the outer wall of the reformer 9 inside the oxidation gas

outlet manifold 8, and most of it is utilized as the reaction heat of hydrogen carbide resolution.

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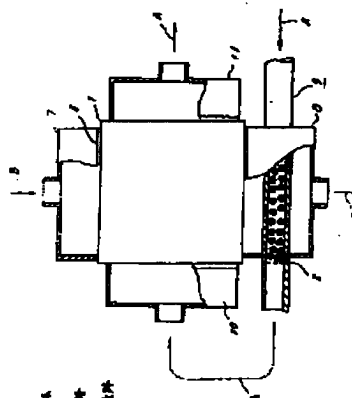


図1は本発明の燃料電池装置の断面図である。
(1) 燃料電池積層体
(2) 触媒
(3) 燃料ガス入口 manifold
(4) 燃料ガス出口 manifold
(5) 酸化ガス出口 manifold
(6) 酸化ガス入口 manifold
(7) 燃料ガス入口 manifold
(8) 酸化ガス出口 manifold
(9) 改質器
(10) 燃料ガス入口 manifold